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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/541,705

07/08/2005

James W Green

PHUS030010US

4059

38107

7590

06/23/2009

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P. O. Box 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

ROZANSKI, MICHAEL T

ART UNIT

PAPER NUMBER

3768

MAIL DATE

DELIVERY MODE

06/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/541,705	Applicant(s) GREEN, JAMES W	
	Examiner MICHAEL T. ROZANSKI	Art Unit 3768	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13, 15, 16 and 18-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13, 15, 16 and 18-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11, 13, 15-16, and 18-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al (US 6,836,529) in view of Weil et al (US 6,821,254 –PG pub version cited by Applicant).

Li et al discloses a system and method of diagnostic imaging with reduced x-ray exposure to the scan subject during scanning. A set of cardiac signals or other motion (i.e. respiratory motion) related signals are acquired. Specifically, CT imaging system 10 is used to acquire imaging data of a subject and reconstructor 34 reconstructs the acquired imaging data into an image representation (see Figures 1 and 2).

Simultaneous with the initiation of a scan, a set of ECG signals are acquired from a set of ECG electrodes (not shown) affixed to a torso region of the patient, wherein a torso includes both the thorax and abdomen regions. The ECG signals detect motion signals including diastolic and systolic phases of the cardiac region of the patient (col 4, lines 61-67).

Li et al generally teaches acquiring cardiac and/or respiratory data signals. However, Li et al does not explicitly describe a meter that measures a time-varying

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electrical parameter across the electrode pair by applying a voltage or current pulse train having a frequency substantially higher than the heart rate across the pair of electrodes and extracting a respiration characteristic from the electrical parameter. Weil et al teaches of a system including an electrode pair 12, 14 placed on the patient's chest. An AC current supply 20 supplies a variable current 22 and is picked up by a voltage sensor 24. The delivered current has a frequency about 1 kHz to 90 kHz, which is substantially higher than the heart rate across the electrode pair. Variations in voltage are measured to detect variations in impedance of the patient's chest area, which are primarily due to activity of the heart and respiration system. An analyzing circuit determines the average amplitude and frequency of signals representing heartbeats and those representing respiration (col 2, line 66-col 3, line 27; see Figure 1, Figure 6 showing end-tidal CO₂ measurements and showing cardiac and respiratory signals produced simultaneously). It would have been obvious to modify Li, to incorporate a specific electrode arrangement for obtaining cardiac/respiratory data as taught by Weil, because Li teaches acquiring cardiac and respiratory signals are useful parameters to obtain to control the procedure and Weil provides one specific manner in which to obtain this data. In Li, it is desired to obtain ECG data and respiratory data (though it is not disclosed how respiratory data are obtained) to determine an imaging profile. Weil, as described above, provides a specific manner for obtaining cardiac and respiratory data.

Response to Arguments

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Applicant's arguments with respect to claims 1-11, 13, 15-16, and 18-30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL T. ROZANSKI whose telephone number is (571)272-1648. The examiner can normally be reached on Monday - Friday, 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric F Winakur/
Primary Examiner, Art Unit 3768

MR

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